BOARD OF CHOSEN FREEHOLDERS
SALEM COUNTY DEPARTMENT OF HEALTH
110 Fifth Street
Suite 400
SALEM, NEW JERSEY 08079

856-935-7510
856-358-3857
FAX 856-935-8483

APPLICATION FOR PERMIT TO CONSTRUCT/ALTER/REPAIR AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM

Form 1—General Information

Municipality_____

1. Type of Permit Needed (Check and Fill-in applicable categories):

___ a. New Construction
___ b. Alteration/ No Expansion or Change in Use
___ c. Alteration/Expansion or Change in Use
___ d. Alteration/Malfunctioning System
___ e. Repair (in-kind replacement)/ Malfunctioning system
___ f. Repair (in-kind replacement) System is not malfunctioning
___ g. Deviation from Standards
___ h. New system installed (existing structure)

2. **Location of Project**:

Municipality _____ Block No. _____ Lot No. _____
Street Address Zip _____

3. **Name of Applicant (print):** _____

4. **Applicant's Present Address:** _____

5. **Applicant's Phone Number:** _____

6. **Type Of Facility:**
_ Residential
_ Commercial/Institutional
Specify Type of Establishment: _____

7. **Type of Wastes to be Discharged:**
_ Sanitary Sewage
_ Industrial Wastes
_ Other—Specify Type

8. **If d. or e. in 1. above are checked, indicate the type of malfunction and its cause (check all that apply):**

__ Contamination of nearby wells or surface water bodies by sanitary sewage or effluent
__ Ponding or breakout of sanitary sewage or effluent onto the surface of the ground
__ Seepage of sanitary sewage or effluent into portions of building below ground
__ Back-up of sanitary sewage into the building served, which is not caused by a physical blockage ofthe internal plumbing
__ Any manner of leakage observed from components that are not designed to emit sanitary sewage or effluent.
__Direct discharges to ground water (no zone of treatment)
Describe the cause of the malfunction:_____

9. **Please expand on Question #1, above, by checking if any of the following apply):**

___ A privy, outhouse, latrine or pit toilet is present, a system must be installed,
___ A system must be upgraded as part of a real property transfer,
___ A cesspool has been identified during a real property transfer and a conforming system must be installed,
___ A malfunctioning cesspool has been identified and a conforming system must be installed.

10. **Other Approvals/Certification/Waivers/Exemptions (Attach to Application):**

_ Pinelands Commission
_ Highlands Water Protection and Planning Act
_ U.S. Army Corps of Engineers
_ NJDEP—Bureau of Flood Plain Management
_ Other—Specify:

I hereby certify that the information furnished on Form 1 of this application is true. I am aware that false swearing is a crime in this State and subject to prosecution.
Signature of Applicant _____Date_____

FOR AGENCY USE ONLY

_ Application Denied—Reason for Denial/Citation of Rules Violated: _____
_ Application Approved **PERMIT NUMBER_____EXPIRATION DATE_____**
_ Application Approved Subject to Approval by NJDEP

Date of Action _____ Signature of Authorized Agent _____

Name and Title _____

COUNTY/MUNICIPALITY _____

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Form 2a—General Site Evaluation Data **Block_____Lot_____**

1. Name of Site Evaluator (print): _____

2. Business Address of Site Evaluator: _____

3. Business Phone Number of Site Evaluator: _____

4. Special Site Limitations Identified (Check appropriate Categories):_ Flood Plains _ Bedrock Outcrops
_ Wetlands_ Excessively Stony _ Disturbed Ground _ Sink Holes_ Sand Dunes _ Steep Slopes
_ Other—Specify _____

5. Soil Logs—Enter on Form 2b—Use one sheet for each soil log.

6. Considerations Relating to Disturbed Ground:

a) Type of Disturbance (Check appropriate categories):
_ Filled Area _ Excavated Area _ Re-graded Area
_ Subsurface Drains _ Other—Specify __
b) Existing Ground Surface
Elevation Relative to Ground Surface _____
Method of Identification _____
c) Suitability of Disturbed Ground_ Unsuitable: Objects Subject to Disintegration or Change in Volume
_ Excessively Coarse_ Proctor Test performed_% Standard Proctor Density = _____

7. Hydraulic Head Test:

a) Hydraulically Restrictive Horizon: Depth Top to Bottom ___
b) Piezometer A: Depth to Bottom _ Depth of Water Level (24 hrs) _
c) Piezometer B: Depth to Bottom _ Depth of Water Level (24 hrs) _
d) Witnessed by _____
Signature _____ Date _____

8. Attachments (Check items included):
_ Site Plan_ Key Map Showing Location of Site On U.S.G.S. Quadrangle or Other Accurate Map
_ Key Map Showing Location of Site on U.S.D.A. Soil Survey Map_ Other—
Specify_____

I hereby certify that the information furnished on Form 2a of this application (and the attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Soil Evaluator _____Date_____
Signature of Professional Engineer _____ License #_____

COUNTY/MUNICIPALITY _____

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Form 2b—Soil Log and Interpretation **Block_____ Lot_____**

1. Log Number __ Method (Check One): _ Profile Pit _ Boring

2. Soil Log Depth (inches)_____

Top-

Bottom_____

_____

_____

Munsel Color Name and Symbol; Estimated Textural Class: Estimated Volume % Coarse Fragment, If Present; Structure; Moist or Dry Consistence; Mottling—Abundance, Size and Contrast, If Present

3. Ground Water Observations:

_ Seepage—Indicate Depth _____

_ Pit/Boring Flooded—Depth after _____ Hours _____

4. Soil Limiting Zones (Check Appropriate Categories):

_ Fractured Rock Substratum—Depth to Top _____

_ Massive Rock Substratum—Depth to Top _____

_ Excessively Coarse Horizon—Depth Top to Bottom _____

_ Excessively Coarse Substratum—Depth to Top _____

_ Hydraulically Restrictive Horizon—Depth Top to Bottom _____

_ Hydraulically Restrictive Substratum—Depth to Top _____

_ Perched Zone of Saturation—Depth Top to Bottom _____

_ Regional Zone of Saturation—Depth to Top _____

5. Soil Suitability Classification:

I hereby certify that the information furnished on Form 2b of this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____**Date** _____

Signature of Professional Engineer _____**License #** _____

COUNTY/MUNICIPALITY_____

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Form 3a. Soil Permeability Data

Block_____Lot_____

Assign a number for each test and a letter for each test replicate. Show test data and calculations on Form 3b, 3c, 3d, 3e, 3f or 3g. Use one sheet for each separate test or test replicate.

1. Summary of Data—Enter data for each test replicate on a separate line.

Type of Test	Test (number)	Replicate (letter)	Depth (inches)	Result*

* For tube permeameter, pit-bailing and piezometer tests report results in inches per hour. For Soil permeability class rating give soil permeability class number. For percolation test report result in minutes per inch. For basin flooding test report result as positive if basin drains completely within 24 hours after second filing, negative otherwise.

2. Design Permeability/Percolation Rate: Specify Test Number _____
_ Average of Test Replicates
_ Single Replicate
_ Slowest of Replicates

3.

Type of Limiting Zone Identified	Test Number

4. Attachments (Check items included):
_ Form 3b—Tube Permeameter Test Data—Number of Sheets __
_ Form 3c—Soil Permeability Class Rating Test Data—Number of Sheets _____
_ Form 3d—Percolation Test Data—Number of Sheets___
_ Form 3e—Pit-Bailing Test Data—Number of Sheets___
_ Form 3f—Piezometer Test Data—Number of Sheets___
_ Form 3g—Basin Flooding Test Data—Number of Sheets___

I hereby certify that the information furnished on Form 3a of this application (and the attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Soil Evaluator _____ Date _____

Signature of Professional Engineer _____License # _____

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Form 3b. Tube Permeameter Test Data

1. Test Number _____ Replicate (Letter) _____ Date Collected _____

2. Material Tested: _ Fill _ Test in Native Soil—Indicate Depth __

3. Type of Sample: _ Undisturbed _ Disturbed

4. Sample Dimensions: Inside Radius of Sample Tube, R, in cm ___ Length of Sample, L, in inches____

5. Bulk Density Determination (Disturbed Samples Only):
Sample Weight (Wt. Tube Containing Sample—Wt. of Empty Tube), grams _____
Sample Volume (L x 2.54cm./inch x 3.14R2), cc_____
Bulk Density (Sample Wt. /Sample Volume), grams/cc____

6. Standpipe Used: _ No _ Yes —Indicate Internal Radius, cm _____

7. Height of Water Level Above Rim of Test Basin, in inches:At the Beginning of Each Test Interval, H1_____At the End of Each Test Interval, H2_____

8. Rate of Water Level Drop (Add additional lines if needed):

Time, Start of Test Interval, t1	Time, End of Test, Interval t2	**Length of Test Interval, t, minutes**

9. Calculation of Permeability:
K, (in/hr) = 60 min/hr x r2/R2 x L(in)/T(min) x In (H1/H2)= 60 min/hr x _ / _ x _ / _x in (_ / _) = _

10. Defects in the Sample (Check appropriate items):
_ None _ Cracks _ Worm Channels
_ Root Channels _ Soil/Tube Contact
_ Large Gravel _ Large Roots
_ Dry Soil _ Smearing _ Compaction
_ Other—Specify _____

11. I hereby certify that the information furnished on Form 3b of this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.
Signature of Site Evaluator _____ Date _____
Signature of Professional Engineer _____ License # _____

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Form 3c. Soil Permeability Class Rating Data

1. Test Number ____ Replicate (Letter) ____

2. Sample Depth_Soil Pit/Boring Number_Date Collected__

3. Coarse Fragment Content:
Total Weight of Sample, W.T., grams _____
Weight of Material Retained on 2mm sieve, W.C.F., grams____
Wt. % Coarse Fragment (W.C.F./W.T. x 100):_____

4. Oven Dry Weight (24 hrs., 105°C) of 40 Gram Air Dry Sample, grams, Wt _____

5. Hydrometer Calibration, Rc_____

6. Hydrometer calibration temperature (°F) _____

7. Hydrometer Reading—40 seconds, grams, R1_____
Temperature of Suspension, °F_____

8. Corrected Hydrometer Reading, grams, R1' _____

9. Hydrometer Reading—2 hours, grams, R2_____
Temperature of Suspension, °F_____

10 Corrected Hydrometer Reading, grams, R2'_____

11. % sand = (Wt. - R1')/Wt. x 100 = (_ - _)/ _ x 100 = __

12. % clay = R2'/Wt. x 100 = _/_ x 100 = _____

13. Sieve Analysis:
a. Oven Dry Wt. (2 hrs., 105°C) Total Sand Fraction (Soil Retained in 0.047 mm Sieve), grams_____
b. Wt. of Fine Plus Very Fine Sand Fraction (Sand Passing 0.25 mm Sieve), grams_____
c. % Fine Plus Very Fine Sand (b/a)_____

14. Soil Morphology (Natural Soil Samples Only):
Structure of Soil Horizon Tested_____
Consistence of Soil Horizon Tested: Dry___ Moist___

15. Soil Permeability Class Rating (Based upon average textural analysis of this replicate and other replicate samples)_____
I hereby certify that the information furnished on Form 3c of this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.
Signature of Site Evaluator_____ Date_____
Signature of Professional Engineer_____ License # _____

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Form 3d. Percolation Test Data

1. Test Number _____ Replicate (Letter)_____ Date Tested_____

2. Depth_____

3. Pre-soak:_____
__ Sandy Textured Soil Only, Shortened Pre-soak—Indicate Time Required for 12 Inches of Water to Drain After Second Filling, Minutes _____

__ Four Hour Pre-soak Completed—Indicate Result:
__ Test Hole Drained Within 16 to 24 Hours After Pre-soak
__ Test Hole Did Not Drain Within 24 Hours After Pre-soak

4. Rate of Fall Data:
a. Time Interval Selected, Minutes_____
b. Record the Drop in Water Level During Each Time Interval to the Nearest 1/10th-Inch On the Lines Below:

Depth of Water, Start of Interval (inches)	Depth of Water, End of Interval (inches)	Drop in Water Level(Inches)

5. Percolation Rate:
a. Time, minutes, Required for a Six-inch Drop in Water Level__
b. Percolation Rate = a/6 = __/6 = __ min/in

I hereby certify that the information furnished on Form 3d of this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____ Date _____

Signature of Professional Engineer _____ License # _____

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Form 3g. Basin Flooding Test Data

1. Test Number ___ Reference Soil Log ___ Date Tested ___

2. Depth of Pit, ft _____

3. Area of Pit, ft2_____

4. Description of Rock Substratum Within Test Zone:
Type of Rock _____
Name of Formation _____
Average Fracture Spacing _____
Type of Fractures (Check Appropriate Category):
__ Open (Wide), Clean—Width of Openings, mm ____
__ Open (Wide), Infilled with Fines—Width of Openings, mm _
__ Tight (Closed)
Orientation of Fractures:
__ Horizontal (Parallel to Pit Bottom) Or Nearly So
__ Inclined
__ Vertical (Parallel to Sides of Pit) Or Nearly So
Hardness of Rock:__ Rippable with Hand Tools
__ Not Rippable with Hand Tools, Rippable by Machine
__ Not Rippable by Machine, Explosives Used

5. Time of First Basin Flooding _____
Volume of Water Added, Gal. _____

6. Result of First Basin Flooding:
__ Basin Drained within 24 Hrs.—Indicate Time ____
__ Basin Not Drained within 24 Hrs.

7. Time of Second Basin Flooding ____
Volume of Water Added, Gal. ____

8. Result of Second Basin Flooding:
_ Basin Drained within 24 Hrs.—Indicate Time __
_ Basin Not Drained within 24 Hrs.

9. I hereby certify that the information furnished on Form 3g of this application is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Site Evaluator _____ Date _____
Signature of Professional Engineer _____ License # _____

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Form 4. General Design Data

1. Volume of Sanitary Sewage, gal. ____
_ Residential: No. of Dwelling Units _ Total No. of Bedrooms _
Ejector Pump YES NO Garbage Grinder YES NO Expansion Attic YES NO
_ Commercial/Institutional—Indicate type of establishment and show method of calculation. If estimate is based on water meter data, indicate source of data, frequency of readings, average daily flow, and maximum recorded daily reading _____

2. Alterations or Repairs
a) Reason for Alteration or Repair (Check appropriate categories):
_ Expansion or Change in Use _ Upgrade Existing Facilities
_ Correct Malfunctioning System _ Other—Specify __
b) Describe Nature of Alteration or Repairs: ___

3. System Components:
a) Grease Trap Capacity, gals ____
Show Calculation Used: ____
b) Septic Tank Capacities, gals: _ First (Single) Compartment __ Second Compartment __
Third Compartment _
c) Effluent Distribution
Method: _ Gravity Flow _ Gravity Dosing _ Pressure Dosing
Dosing Device: _ Pump _ Siphon
d) Dosing Tank Capacities, gals: Total Capacity _ Dose Volume _ Reserve Capacity _____
e) Laterals: Number _ Total Length _ Pipe Size _ Spacing _
f) Connecting Pipe: Size __ Length __
g) Manifold: Size __ Length __
h) Disposal Field: Type of Installation ___
Design Permeability (Percolation Rate) ___
Trenches: Width __ Total Length __ Bed: Area _
i) Seepage Pits: Design Percolation Rate ___
Number of Pits __ Total Percolating Area Provided _

4. Attachments (Check items included):
_ General Plan of System Showing Location of All System Components
_ X-Sections of Each System Component Including Grease Trap, Septic Tank, Dosing Tank, Disposal Field, Seepage Pits and Interceptor Drains
_ Pump Performance Curve
_ Other—Specify _____

5. I hereby certify that the information furnished on Form 4 of this application (and attachments thereto) is true and accurate. I am aware that falsification of data is a violation of the Water Pollution Control Act (N.J.S.A. 58:10A-1 et seq.) and is subject to penalties as prescribed in N.J.A.C. 7:14-8.

Signature of Professional Engineer _____ Date _____

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Form 5. Design of Pressure Dosing System

1. Configuration of Distribution Network:
Type of Manifold: _____ End _____ Central
Distribution Laterals: Number _____ Length, ft _____ Spacing, ft _____
Hole Diameter, ins _____ Hole Spacing, ins _____
Diameter of Laterals, ins _____

2. Lateral Discharge Rate:
Design Pressure Head at Supply End of Laterals, Hp, ft _____
Hole Discharge Rate, Q, gpm _____
Number of Holes per Lateral, n _____
Lateral Discharge Rate, (Q x n) gpm _____

3. Manifold Length, ft _____ Manifold Diameter, ins _____

4. System Discharge Rate, gpm _____

5. Dose Volume:_____
Design Volume of Sewage, gal/day _____
Design Permeability, in/hr _ or Percolation Rate, min/in _____
Internal Volume of Distribution Network _____
Dose Volume _____

6a. Pump Selection:
Diameter of Delivery Pipe _____ Length of Delivery Pipe _____
Friction Loss in Delivery Pipe, Hf, ft _____
Elevation of Dosing Tank Low Water Level _____
Elevation of Lateral Invert _____
Elevation Head, He, ft _____
Total Operating Head, Ht (Hp + Hf + He), ft _____
Pump Model _ Rated Horsepower _____
Pump Discharge Rate at Total Operating Head, gpm _____

6b. Siphon Elevation:
Diameter of Delivery Pipe _____ Length of Delivery Pipe _____
Friction Loss in Delivery Pipe, Hf, ft _____
Velocity Head, Hv, ft _____
Total Operating Head, Ht (Hp + Hf + Hv), ft _____
Elevation of Lateral Invert _____
Elevation of Siphon Invert _____

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Signature of Professional Engineer _____ Date _____